IN THE CLAIMS:

Please amend Claim 41 as follows:

1-29 (Canceled)

30. (Previously Presented) An optical information reproducing apparatus for recording or reproducing information by controlling rotation of an optical disk so as to provide a constant linear velocity by changing a rotation frequency in accordance with a radial-direction position of an optical spot, said apparatus comprising:

a circuit configured to control rotation of the optical disk by changing a rotation frequency thereof;

a focusing servo control circuit and a tracking servo control circuit for the optical spot; and

a circuit configured to adjust a servo-loop gain of a tracking servo control in accordance with the change of the disk rotation frequency,

wherein said circuit configured to adjust the servo-loop gain of tracking servo control adjusts the servo-loop gain so that when a servo gain at a highest rotation frequency Wmax is represented by Gmax, and a rotation frequency is represented by Wcurr, a servo gain Gcurr satisfies the following relationship:

$$Gcurr = Gmax \times (Wcurr/Wmax)^2$$

31. (Previously Presented) An optical information reproducing apparatus for recording or reproducing information by controlling rotation of an optical disk so as to provide a constant linear velocity by changing a rotation frequency in accordance with a radial-direction

position of an optical spot, said apparatus comprising:

a circuit configured to control rotation of the optical disk by changing a rotation frequency thereof;

a focusing servo control circuit and a tracking servo control circuit for the optical spot; and

a circuit configured to adjust a servo-loop gain of a tracking servo control in accordance with the change of the disk rotation frequency,

wherein said focusing servo control circuit comprises a circuit configured to adjust the servo-loop gain of focusing servo control, and wherein when said circuit configured to adjust the servo-loop gain of tracking servo control changes the servo-loop gain of the tracking servo control with a predetermined ratio, said circuit configured to adjust the servo-loop gain of focusing servo control changes the servo-loop gain of focusing servo control with a ratio proportional to the root of the predetermined ratio.

- 32 (Canceled)
- 33 (Canceled)
- 34 (Canceled)
- 35 (Canceled)
- 36 (Canceled)
- 37 (Canceled)
- 38 (Canceled)
- 39 (Canceled)
- 40 (Previously Presented) An optical information reproducing apparatus for recording or reproducing information using an optical spot by controlling rotation of an optical disk so as to

provide a constant linear velocity by changing a rotation frequency in accordance with a radial-direction position of the optical spot, said apparatus comprising:

a circuit configured to control rotation of the optical disk by changing a rotation frequency thereof;

a focusing servo control circuit and a tracking servo control circuit for the optical spot; and

a circuit configured to adjust a servo-loop gain of a focus servo control in accordance with the change of the disk rotation frequency,

wherein said circuit configured to adjust the servo-loop gain of focusing servo control adjusts the servo-loop gain so that when a servo gain at a highest rotation frequency Wmax is represented by Gmax, and a rotation frequency is represented by Wcurr, a servo gain Gcurr satisfies the following relationship:

$Gcurr = Gmax \times Wcurr / Wmax$

41. (Currently Amended) An optical information reproducing apparatus for recording or reproducing information using an optical spot by controlling rotation of an optical disk so as to provide a constant linear velocity by changing a rotation frequency in accordance with a radial-direction position of the optical spot, said apparatus comprising:

a circuit configured to control rotation of the optical disk by changing a rotation frequency thereof;

a focusing servo control circuit and a tracking servo control circuit for the optical spot; and

a circuit configured to adjust a servo-loop gain of a focus servo control in

accordance with the change of the disk rotation frequency,

wherein said tracking servo control circuit comprises a circuit configured to adjust the servo-loop gain of tracking servo control, and wherein when said circuit configured to adjust the servo-loop gain of the focusing servo control changes the servo-loop gain of focusing servo control with a predetermined ratio, said circuit configured to adjust the servo-loop gain of tracking servo control changes the servo-loop gain of tracking servo control with a ratio proportional to the root square of the predetermined ratio.

- 42. (Canceled)
- 43. (Canceled)
- 44. (Canceled)